

REMARKS

Claims 1-8 are pending in the application with claims 1-4, 6, and 8 amended herein. The Examiner is thanked for indicating that claims 5 and 7 are allowed. No new matter has been added by these amendments.

Initially, the office action objects to the Abstract for including legal terms and for being longer than 150 words. The Abstract has been cancelled and a new Abstract is provided herein having the legal language removed and now including only 146 words. Withdrawal of the objection is requested.

Claims 1 and 2 are rejected under 35 U.S.C. § 103(a) as unpatentable over Fujimoto (U.S. 4,748,623), and claims 3-4 and 8 are rejected under 35 U.S.C. § 102(b) as anticipated by Fujimoto.

Claims 1 and 2 have been amended to recite:

a step of time-division multiplexing said low speed frames accommodating said low speed signals after said step (c), thereby producing a high speed frame accommodating high speed signals; wherein said "1/0" alternating signals, and said "0/1" alternating signals are mapping to a third area of said high speed frame, and a mark rate in said third area mapped to said "1/0" alternating signals, and said "0/1" alternating signals becomes 50%.

Claim 3 has been amended to recite:

a step of time-division multiplexing said low speed frames accommodating said low speed signals after said step (c), thereby producing a high speed frame accommodating high speed signals; wherein said all "0" signals, and said all "1" signals are mapping to a third area of said high speed frame, and a mark rate in said third area mapped said all "0" signals and said all "1" signals become 50%.

Claim 4 has been amended to recite:

a step of time-division multiplexing said low speed frames accommodating said low speed signals after said step (c), thereby producing a high speed frame accommodating high speed signals;

wherein said inverted random patterns and said random patterns are mapping to a third area of said high speed frame, and a mark rate in said third area mapped said inverted random patterns and random patterns become 50%.

Finally, claim 8 has been amended to recite:

a step of time-division multiplexing said low speed frames accommodating said low speed signals after said step (c), thereby producing a high speed frame accommodating high speed signals; wherein said inverted signals and non inverted signals are mapping to a third area of said high speed frame, and a mark rate in said third area mapped said inverted random patterns and random patterns becomes 50%.

As best understood, Fujimoto teaches storing DATA1 and DATA2 converted from ODATA by a converter 1 in shift registers 21 and 23, and detecting one of a modified frame synchronizing patterns in col. 4, lines 55-65, and producing outputs CLK1, CLK2, CLK3, and CLK4 having a one-quarter clock period and pulse width of a one-half clock signal, and converting the input signal ODATA to four signal trains synchronized with the signals CLK1-CLK4 in col. 10, lines 15-25.

ODATA which is time division multiplexed by DATA1 and DATA2 includes a frame synchronizing pattern "111110100000."

However, it is submitted that the frame synchronizing pattern "111110100000" of a high speed frame is set in a first area of frame used for frame synchronization, and is not set in a second area of the high speed frame different from the first area. Further, the frame synchronizing pattern "111110100000" of the high speed frame is not a time division multiplexed a header of a low speed frame. Still further, Fujimoto fails to disclose a header for a low speed frame as recited in the claims, that is, Fujimoto fails to disclose the second area of a low speed frame of the amended claims 1, 2, 3, and 4 which is not used for synchronization.

With respect to claim 8, it is submitted that the frame synchronizing pattern "111110100000" is set in a first area of the frame and used for frame synchronization, and is not set in a second area of the frame different from the first area. Further, the frame synchronizing pattern "111110100000" is not a time division multiplexed header of a low speed frame. Still further, Fujimoto fails to disclose a header of the low speed frame as recited in claim 8, that is Fujimoto fails to disclose the second area of a low speed frame which is not used for synchronization. Another distinguishing features is that, Fujimoto fails to disclose inverting partly the frame synchronizing pattern "111110100000."

Accordingly, it is submitted that claims 1, 2, 3, 4, and 8, as amended patentably distinguish over the relied upon portions of Fujimoto and are allowable.

Claim 6 is rejected under 35 U.S.C. § 102(b) as anticipated by Suh et al. (U.S. 5,710,774)(hereinafter Suh).

Claim 6 as been amended to recite:

a step of time-division multiplexing said low speed frames accommodating said low speed signals after said step (c), thereby producing a high speed frame accommodating high speed signals; wherein said inverted random patterns and said random patterns are mapping to a third area of said high speed frame, and a mark rate in said third area mapped said inverted random patterns and random patterns become 50%.

As best understood, Suh teaches that the first 12 bytes of the frame alignment bytes A1(=11110110) and the next 12 bytes of frame alignment bytes A2(=00101000) in col. 2, lines 15-30 and col. 6, lines 45-55. DATA which is time division multiplexed by steps S1-S8 include the first 12 frame alignment bytes A1 and the next 12 frame alignments bytes A2 of the high speed frame.

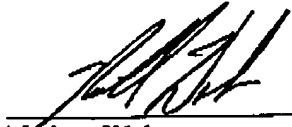
However, both A1 bytes and A2 bytes are specific patterns and not random patterns as recited in claim 6. Further Suh fails to disclose a header of the low speed frame, and time division multiplexing the header of the low speed frame. Still further the A2 bytes are not the inverted bytes of the A1 bytes.

Accordingly it is submitted that the relied upon portions of Suh fail to teach each and every element of claim 6

In view of the remarks set forth above, this application is in condition for allowance which action is respectfully requested. However, if for any reason the Examiner should consider this application not to be in condition for allowance, the Examiner is respectfully requested to telephone the undersigned attorney at the number listed below prior to issuing a further Action.

Any fee due with this paper may be charged to Deposit Account No. 50-1290.

Respectfully submitted,



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